

**\* \* REASONS FOR AMENDMENTS AND REMARKS \* \***

Applicants wish to acknowledge with appreciation the Examiner's analysis and efforts in examining this application.

On page 2 of the Official Action, the Examiner objected to Claims 11 and 18 due to informalities. Accordingly, Claims 11 and 18 have been amended pursuant the Examiner's suggestions.

On pages 2-4 of the Official Action, the Examiner rejected Claims 1-10 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Becker et al (5,718,537) in view of Thomas (4,104,885). Regarding Claims 1, 3 and 8, the Examiner alleges that Becker et al disclose a polymeric trench drain 10 that is capable of being used as a liner (see column 1, lines 35-40). Becker et al illustrate a longitudinally extending trough with a floor 14 and sidewalls 12 (see Fig. 1). The sidewalls define a longitudinally extending edge comprising see page lip 29. Becker et al also discloses first through fourth screw-holes or longitudinally extending receptacles 56 on the outermost-end support ribs 24 with first and second transverse ends. At the male end 16 of the invention, the longitudinally extending sidewalls and floor extend beyond a first open end of one of the receptacles located near crushing rib or section 61. The first transverse open end of the screw-hole or receptacle faces a transverse open of the trough. The screw-holes permit male ends 16 and female ends 18 of adjacent trench drain section to be fastened to one another via connecting screws 58 (see column 4, lines 15-25).

Regarding claim 2, the Examiner alleges that Becker et al discloses a female end 18 comprising receptacles or screw-holes in an outermost-end support rib 24 wherein an end of screw-hole is essentially flush with a second open end of the trough.

Regarding Claim 4, the Examiner alleges the screw-holes permit male ends 16 and female ends 18 of adjacent trench drain sections to be fastened to one another via connecting screws 58 (see column 4, lines 15-25).

Regarding Claims 5 and 10, the Examiner alleges the male end 16 includes a portion of sidewalls 12 and floor 14 and the female end comprises a recessed portion adapted to matingly receive a male end of an adjacent drain. Thereby, portions adjacent trench drains are partially encompassed by other portions through overlapping.

Regarding Claim 6, the Examiner alleges Becker et al disclose rods or spikes 36 that extend from a sidewall of the trench drain and that are secured to the ground.

However, the Examiner conceded that Becker et al fails to disclose that the receptacles are located on the longitudinally extending edge 29.

Regarding claims 1, 7 and 13, the Examiner, however, alleges that Thomas discloses tunnel lining assembled out of multiple connectable segments wherein each segment has longitudinally receptacles for receiving connecting dowels to hold the segments together (see abstract and Fig. 1). The connecting dowels interference fit their respective longitudinally extending receptacles.

Accordingly, it is the Examiner's position that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trench drain of Becker et al to incorporate longitudinally receptacles within the longitudinally extending edge of the drain, as well as connecting dowels to fasten abutting segments of the drain, because insertion of connecting members into longitudinally-extending receptacles is a functionally equivalent method of fastening adjacent segments in a longitudinally extending trench drain or liner, as taught by Thomas.

The rejection that Claims 1-10 and 13 are obvious under Becker *et al.* in view of Thomas is respectfully traversed. Claim 1 of the present application includes a longitudinally-extending edge located opposite a longitudinally-extending floor with a longitudinally-extending receptacle located on that edge. Accordingly, as the edge is located opposite the floor, so too is the receptacle. In contrast, the Becker *et al.* reference as shown in Figs. 2, 4, and 6A, discloses an edge 29 opposite the floor 53, but not a longitudinally-extending receptacle located on that edge and opposite the floor. Rather, Becker *et al.* discloses screw-holes 56 disposed through support ribs 24 adjacent the male end 16 and female end 18 of the trench end and adjacent floor 53. (See Fig. 4.) In fact, support rib 24 encompasses the periphery of the floor.

Respectfully, it is agreed that Becker *et al.* fails to disclose that the claimed receptacles located on the longitudinally-extending edge, as conceded by the Examiner. As such it is the case that the screw-holes 56 of Becker *et al.* also are not located opposite the floor 53.

With respect to the Thomas reference, a tunnel lining is disclosed employing connecting dowels 70 at equal angular positions around the leading edge of an annulus. See col. 4, lines 61-63. Such an annulus, however, indicates a ring structure, as opposed to a channel of the type disclosed in the present application, or even the Becker *et al.* patent. Attention is respectfully directed to Figs. 1 and 12 of Thomas, for example, that confirm this fact. Thus there is no distinction between wall and floor structures.

In addition, corresponding recesses 71 are formed in the external surface of the trailing edge of the next annulus. See col. 4, lines 67-68; and col. 5, line 1. These recesses, however, are not located on a longitudinally-extending edge opposite a longitudinally extending floor, nor do they have first and second transverse open ends as claimed in Claim 1. Rather, recesses 71 are simply formed around the outer periphery of the ring of the annulus, as shown in Figs. 1 and 2, for example. These references do not teach or suggest the claimed invention of Claims 1 or 8.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or to combine the references' teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Clearly, in order to establish a *prima facie* case of obviousness, the combination of references must disclose every limitation of the claim at issue. As discussed, neither the Becker *et al.* nor Thomas references disclose a longitudinally-extending receptacle located on each longitudinally-extending edge, or each receptacle having first nor second transverse open ends. Accordingly, as these references do not disclose the claimed invention, it is respectfully requested that this rejection be withdrawn.

With respect to Claim 6, the spikes 36 is shown in Fig. 9 of Becker *et al.* do not extend from at least one of the sidewalls as claimed in Claim 6.

With respect to Claim 7, Thomas does not appear to disclose first and second connectors that interference fit in their respective longitudinally extending receptacles. To the contrary, Thomas teaches the use of a grouting material that is injected into recesses 71. See col. 5, lines 1-5. The grouting is more of an adhesive than a friction-fit receptacle to receive a connector.

On pages 4 and 5 of the Official Action, the Examiner rejected Claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Becker *et al.* in view of Thomas, as applied to Claim 8 above, in further view of Butler (4,741,645). The Examiner determined that Becker *et al.* and Thomas disclose the inventions as described above; however, they fail to disclose

removable portion in the floor of the drain. The Examiner, however, alleges that Butler discloses a continuous gutter lining 8, which is essentially a liner for a channel (see Figs. 8 & 9). Butler discloses a flange 40 glued to the bottom 43 of the gutter liner in the immediate region of a downspout 36 and a tubular portion 38 that extends downwardly into downspout 36. Butler further discloses that a hole 59 is made into the gutter liner strip such that runoff water can drain into the downspout adapter.

The Examiner determined that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trench drain of Becker *et al.* to provide holes in the bottom portion, as taught by Butler *et al.*, because the trench drains may, and commonly do, drain into another pipe and out to another part of a larger water collection system. The holes taught by Butler *et al.* provide an opening for the liquid to drain into such a pipe. Furthermore, it would have been obvious to provide a perforated line within the trench drain floor to facilitate removal of a portion of the drain to accommodate such a pipe. In the case that removal of a bottom portion of the drain is not necessary, the trench drain's perforated portion may remain intact without compromising operation of the system.

Because the combination of Becker *et al.* and Thomas do not disclose the invention of Claims 1 or 8, the addition of the gutter drain disclosed in Butler does not disclose all the limitations of Claims 11 and 12. In addition, there is no motivation to combine the disclosures of Becker *et al.* and Thomas with Butler to get the claimed invention. Aside from being distinguishable from the present claimed invention, Becker *et al.* and Thomas are at least, both liners configured to be placed into the ground. In contrast, the disclosure of Butler is a gutter configured to attach to the roof of a house and suspend in the air. Respectfully, there is no motivation to combine channel liners that are disposed in the ground with gutters that are suspended in the air.

Furthermore, the reason the Examiner provides for such motivation is that trench drains drain water from one pipe to another. However, the hole in the landscaping channel is not connecting to another landscaping channel, that is left up to the longitudinally-extending receptacles and connectors. The holes in the channel liner of the present invention are used for accommodating fence posts and the like. See Fig. 8. The hole in the channel liner floor does not connect to another channel liner. There is no motivation to seek the gutter arts to accommodate a fence post hole in a channel liner.

Accordingly, in light of this clarification, it is respectfully requested that this rejection be withdrawn.

If, upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact Applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. To the extent additional fees are required, please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 02-1010 (20794/82667) and please credit any excess fees to such deposit account.

Respectfully submitted,



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